

SERVICE BULLETIN No. 300-3-95

Compliance mandatory

Subject: Rudder Pedal Safety Control Stop

Models and Serial N° affected¹: EA-300: if factory equipped or retrofitted with the electric actuated rudder pedal adjustment produced up to 11/1995
EA-300/S: SN 001-028
EA-300/L: SN 001-015

Purpose: In flight failure of rudder pedal footrest, loss of directional control.

Approval: The technical content of this Service Bulletin have been approved by LBA.

Compliance time: Part I: prior to next flight.
Part II: at next annual or 50h inspection whichever comes first.
Part II also to be performed upon installation of new rudder control cables and after 50h of usage.

Problem The control stop for the rudder control system is located at the rudder hinge. A second (safety) stop is located at the rudder pedal bearing having the only purpose of protecting the lower brake system fitting in case of a rudder cable failure. This second stop must not be reached under normal operation conditions. Missalignment or excessive elongation of the rudder cables will result in misuse of this second stop and a subsequent overload of the rudder bearing. An subsequent inflight failure of the footrest has been reported.

Instructions Part I:

- I.1 Check correct rudder pedal centering alignment using the procedure and template as shown in figures 1&2.

¹Pedal bearings EA-44302.202 Mod -E and subsequent are not affected.

- I.2 Check safety control stop for signs of wear. This would indicate a misalignment or elongation of the rudder cable system.
- I.3 Check footrest flanges near the pedal bearing for cracks which in case the safety control stop is misused, will propagate from the safety wire holes. If cracks are found, replace the footrest by a new one (PN PC-74204.1).
- I.4 Rough check of safety stop clearance. With a maximum pilot force acting on the fully deflected rudder pedal the safety stop shall not be reached. If this check fails proceed with Part II.

Instructions Part II:

to be performed with aircraft fuselage covers in the area of the rudder pedals unmounted.

- II.2 Check for minimum 3.5 mm (1/8") clearance (rudder cables having 50h flight time minimum) of the safety stop versus the rudder pedal when fully deflected, refer to figure 3; On newly installed rudder cables the minimum spacing is 6mm. This check to be performed with zero loading on the rudder pedals.
 - II.3 In case the minimum clearance is not given the safety stop in most cases can be reworked. Make sure that the rework does not sacrifice the intended function of the safety stop. The rework therefore has to be checked with the rudder cables disconnected and the rudder pedals in the most forward position. In this case, simulating a broken rudder cable, the lower brake fitting shall not contact the pedal traverse base. If the safety stop can't be reworked order a new one (PN PC-44302.202-F)
 - II.4 Repeat check I.4 with a force of approx. 90kg (200lbs). If the stop is reached the control system indicates a too high flexibility which needs to be traced. In this case contact EXTRA for advice.
- All checks to be performed on either side.
 - In case the rework is not sufficient or the alignment as checked per instruction II is not given the rudder cables need to be changed.
 - In case any other problem is discovered please contact the manufacturer.

Note:

- EA-300/S up to SN 011 have not been factory equipped with the safety control stop. It is advisable to install the modified pedal bearings P/N EA-44302.202-F.

- A repeated check of the minimum clearance is advisable and will be introduced in the 100h check list with the next revision of the Service Manuals
- Alterations or repair of the aircraft must be accomplished by licenced personell only.

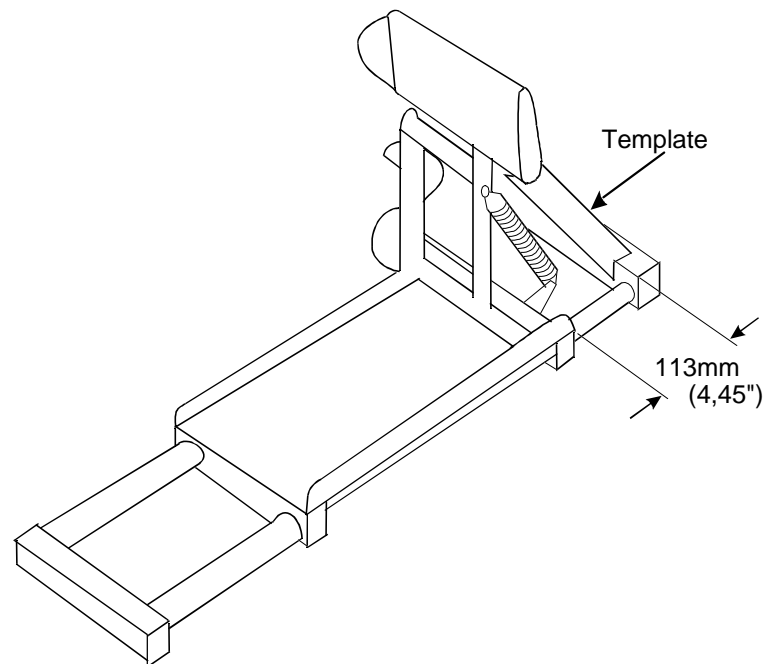


Fig. 1 Pedal center position alignment

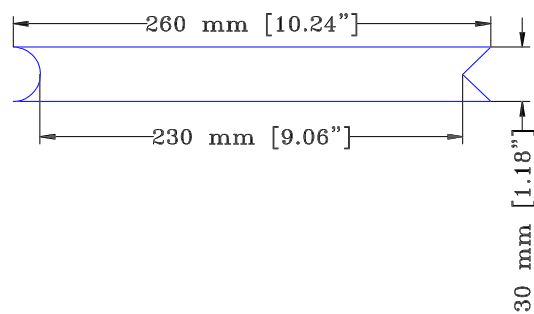


Fig. 2 Pedal center position alignment template

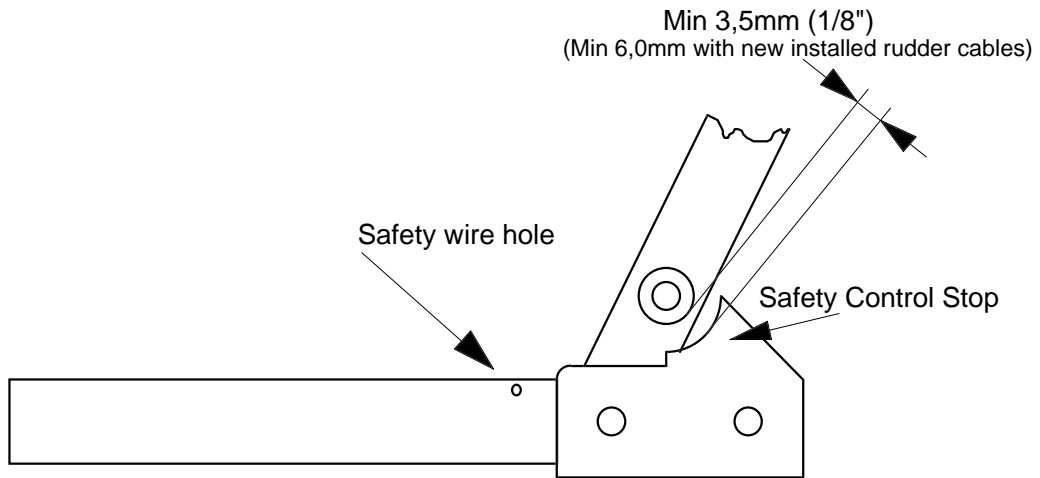


Fig. 3 Safety stop minimum clearance